

In the Title:

Please change the title to read:

ANTIBODIES ASSOCIATED WITH ALTERATIONS IN BONE DENSITY

In the Claims:

Please cancel claims 18, 19, 22 and 88-93 from consideration.

Please add new claims 94-103 to recite as follows:

Bl 94. (New) An isolated antibody or binding fragment thereof which binds to a TGF-beta binding protein, wherein said binding protein is selected from the group consisting of:

(a) an isolated polypeptide encoded by a polynucleotide sequence selected from SEQ ID NOs: 1, 5, 9, 11, 13, and 15, or complementary sequences thereof;

(b) an isolated polypeptide selected from SEQ ID NOs: 2, 6, 10, 12, 14, and 16; and

(c) an isolated polypeptide encoded by a polynucleotide that specifically hybridizes to a polynucleotide encoding the polypeptides of (a) under conditions of high stringency, wherein high stringency conditions are prewashing in 60 mM Tris pH 8.0, 2 mM EDTA, 5x Denhardt's, 6x SSC, 0.1% (w/v) N-laurylsarcosine, 0.5% (w/v) NP-40 (nonidet P-40) overnight at 45°C, followed by two washes with 0.2x SSC containing 0.1% SDS at 45-50°C.

95. (New) The isolated antibody or binding fragment thereof of claim 94, wherein the isolated antibody or binding fragment thereof is a polyclonal antibody.

96. (New) The isolated antibody or binding fragment thereof of claim 94, wherein the isolated antibody or binding fragment thereof is a monoclonal antibody.

97. (New) The isolated antibody or binding fragment thereof of claim 94, wherein the isolated antibody or binding fragment thereof is a humanized antibody.

98. (New) The isolated antibody or binding fragment thereof of any one of claims 94-97, wherein the antibody has an affinity of at least 10^{-7} M.

99. (New) The isolated antibody or binding fragment thereof of any one of claims 94-97, wherein the antibody has an affinity of at least 10^{-8} M.

100. (New) A hybridoma that produces an antibody according to any one of claims 94-97.

101. (New) A method of producing monoclonal antibodies, comprising:

- (a) immunizing an animal with a TGF-beta binding protein or portion thereof;
- (b) harvesting spleen cells from said animal;
- (c) fusing said spleen cells with a myeloma cell line; and
- (d) culturing said fused cells under conditions that allow the production of said antibody.

102. (New) A method for the production of an antibody of any one of claims 94-97 comprising culturing hybridoma cells under conditions that allow the production of said antibody.

103. (New) A method for the production of an antibody of any one of claims 94-97 comprising:

- (a) providing a recombinant host cell capable of producing said antibody; and
- (b) culturing said cell under conditions that allow the production of said antibody.

REMARKS

Applicants submit this Amendment in response to the Office Action mailed November 20, 2001 (Paper No. 5). Claims 18, 19, 22 and 88-93 were pending in the application. Following the above amendments, and as further discussed below in the context of the